

WOUND MANAGEMENT

The need for active immunization (tetanus toxoid), with or without passive immunization (tetanus immune globulin [TIG]), depends on the condition of the wound and the patient's immunization history (see table below). Persons with wounds that are neither clean nor minor, and who have had 0-2 prior tetanus toxoid doses or have an uncertain history of prior doses, need TIG as well as Td. This is because early doses of toxoid do not induce immunity, but only prime the immune system. The TIG provides temporary immunity by directly providing antitoxin. This ensures that protective levels of antitoxin are achieved even if an immune response has not yet occurred.

For wounds of average severity, 250 units of TIG should be administered at a separate site and in a separate syringe from that used for accompanying Td.

The following table is a guide to active and passive tetanus immunization at the time of wound treatment or debridement. It presumes a reliable knowledge of the patient's immunization history.

TETANUS PROPHYLAXIS IN WOUND MANAGEMENT				
HISTORY OF TETANUS IMMUNIZATION (DOSES)	CLEAN, MINOR WOUNDS		ALL OTHER WOUNDS ¹	
	Tdap/Td ²	TIG ³	Tdap/Td ²	TIG ³
Uncertain or less than 3	Yes	No	Yes	Yes
3 or more	No ⁴	No	No ⁵	No ⁶

¹ Such as, but not limited to, wounds contaminated with dirt, feces, soil, and saliva, puncture wounds, avulsions, and wounds resulting from missiles, crushing, burns, and frostbite.

² Tdap is preferred to Td for persons aged 11-64 years and may be used in persons aged 65 years and older who have never received Tdap. Td is preferred to TT for persons who received Tdap previously or when Tdap is not available. If TT and TIG are both used, Tetanus Toxoid Adsorbed rather than tetanus toxoid for booster use only (fluid vaccine) should be used. DTaP (or DT if pertussis vaccine is contraindicated) is recommended for children under 7 years of age. **NOTE: During the California pertussis epidemic, children aged 7 years and older requiring tetanus prophylaxis may be administered Tdap.**

³ TIG – Tetanus Immune Globulin: The recommended dose for wounds of average severity is 250 units intramuscularly (IM). When both Td and TIG are administered, use separate syringes and separate injection sites.

⁴ Yes, if 10 years or more since last dose.

⁵ Yes, if 5 years or more since last dose. More frequent boosters are not needed and can accentuate side effects. In addition, ACIP recommends that persons who experienced an Arthus reaction after a dose of tetanus toxoid-containing vaccine should not receive Td more frequently than every 10 years, even for tetanus prophylaxis as part of wound management (see next column, Reminder #4).

⁶ Yes, if known to have a significant immune deficiency state (e.g., HIV, agammaglobulinemia), since immune response to tetanus toxoid may be suboptimal.

Reminder:

1. Regardless of immunization status, all wounds should be properly cleaned and debrided. Wounds should receive prompt medical treatment to remove all devitalized tissue and foreign material as an essential part of tetanus prophylaxis.
2. Enter any immunization administered on the patient's personal immunization record, or give the patient a notification of immunization for his/her record.
3. If a contraindication to using tetanus toxoid-containing preparations exists for a person who has not completed a primary series of tetanus toxoid immunization and that person has a wound that is neither clean nor minor, only passive immunization should be given using tetanus immune globulin (TIG).
4. An Arthus reaction associated with a vaccine that contained diphtheria toxoid without tetanus toxoid (e.g., MCV4), deferring Td (DTaP, DT, Tdap) might leave the person inadequately protected against tetanus and TT should be administered. In all circumstances, the decision to administer TIG is based on the primary vaccination history for tetanus.